

Resource Summary Report

Generated by [RRID](#) on Aug 17, 2026

pAAV-Ef1a-DIO hChR2(E123A)-EYFP

RRID:Addgene_35507

Type: Plasmid

Proper Citation

RRID:Addgene_35507

Plasmid Information

URL: <http://www.addgene.org/35507>

Proper Citation: RRID:Addgene_35507

Insert Name: hChR2

Organism: Chlamydomonas reinhardtii

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:22179551](#)

Vector Backbone Description: Backbone Marker:Stratagene; Backbone Size:5605; Vector Backbone:pAAV; Vector Types:Mammalian Expression, AAV; Bacterial Resistance:Ampicillin

Plasmid Name: pAAV-Ef1a-DIO hChR2(E123A)-EYFP

Relevant Mutation: E123A

Record Creation Time: 20220422T222151+0000

Record Last Update: 20260815T081401+0000

Ratings and Alerts

No rating or validation information has been found for pAAV-Ef1a-DIO hChR2(E123A)-EYFP.

No alerts have been found for pAAV-Ef1a-DIO hChR2(E123A)-EYFP.

Data and Source Information

Usage and Citation Metrics

We found 27 mentions in open access literature.

Listed below are recent publications. The full list is available at [RRID](#) .

Bakhurin K, et al. (2025) Dopamine dynamics during stimulus-reward learning in mice can be explained by performance rather than learning. *Nature communications*, 16(1), 9081.

Cao F, et al. (2025) Gustatory thalamic neurons mediate aversive behaviors. *Nature communications*, 16(1), 8517.

Kim J, et al. (2025) Encoding the glucose identity by discrete hypothalamic neurons via the gut-brain axis. *Neuron*, 113(16), 2673.

Mata-Pacheco V, et al. (2024) Dynamic, sex- and diet-specific pleiotropism in the PAC1 receptor-mediated regulation of arcuate proopiomelanocortin and Neuropeptide Y/Agouti related peptide neuronal excitability by anorexigenic ventromedial nucleus PACAP neurons. *Journal of neuroendocrinology*, 36(1), e13357.

Basu R, et al. (2024) Ventromedial hypothalamic nucleus subset stimulates tissue thermogenesis via preoptic area outputs. *Molecular metabolism*, 84, 101951.

Lemieux M, et al. (2024) Functional plasticity of glutamatergic neurons of medullary reticular nuclei after spinal cord injury in mice. *Nature communications*, 15(1), 1542.

Matcham AC, et al. (2024) Cadherin-13 Maintains Retinotectal Synapses via Transneuronal Interactions. *The Journal of neuroscience : the official journal of the Society for Neuroscience*, 44(5).

Petzold A, et al. (2023) Complementary lateral hypothalamic populations resist hunger pressure to balance nutritional and social needs. *Cell metabolism*, 35(3), 456.

Zhou S, et al. (2023) Mouse models of surgical and neuropathic pain produce distinct functional alterations to prodynorphin expressing neurons in the prelimbic cortex. *Neurobiology of pain (Cambridge, Mass.)*, 13, 100121.

Cramer N, et al. (2023) Elevated Serotonin in Mouse Spinal Dorsal Horn Is Pronociceptive. *eNeuro*, 10(12).

Lombardi A, et al. (2023) Recovery kinetics of short-term depression of GABAergic and glutamatergic synapses at layer 2/3 pyramidal cells in the mouse barrel cortex. *Frontiers in cellular neuroscience*, 17, 1254776.

Delignat-Lavaud B, et al. (2023) Synaptotagmin-1-dependent phasic axonal dopamine release is dispensable for basic motor behaviors in mice. *Nature communications*, 14(1), 4120.

Sayers S, et al. (2022) The vital role of arcuate nociceptin/orphanin FQ neurones in mounting an oestradiol-dependent adaptive response to negative energy balance via inhibition of nearby proopiomelanocortin neurones. *The Journal of physiology*, 600(22), 4939.

Oz O, et al. (2022) Non-uniform distribution of dendritic nonlinearities differentially engages thalamostriatal and corticostriatal inputs onto cholinergic interneurons. *eLife*, 11.

Kaneko K, et al. (2022) Developmentally regulated impairment of parvalbumin interneuron synaptic transmission in an experimental model of Dravet syndrome. *Cell reports*, 38(13), 110580.

Le N, et al. (2021) Pituitary Adenylate Cyclase Activating Polypeptide Inhibits A10 Dopamine Neurons and Suppresses the Binge-like Consumption of Palatable Food. *Neuroscience*, 478, 49.

Hernandez J, et al. (2021) Nociceptin/orphanin FQ neurons in the Arcuate Nucleus and Ventral Tegmental Area Act via Nociceptin Opioid Peptide Receptor Signaling to Inhibit Proopiomelanocortin and A10 Dopamine Neurons and Thereby Modulate Ingestion of Palatable Food. *Physiology & behavior*, 228, 113183.

Bitzenhofer SH, et al. (2021) A transient developmental increase in prefrontal activity alters network maturation and causes cognitive dysfunction in adult mice. *Neuron*, 109(8), 1350.

Chang R, et al. (2021) Pituitary Adenylate Cyclase-Activating Polypeptide Excites Proopiomelanocortin Neurons: Implications for the Regulation of Energy Homeostasis. *Neuroendocrinology*, 111(1-2), 45.

Sun X, et al. (2020) Functionally Distinct Neuronal Ensembles within the Memory Engram. *Cell*, 181(2), 410.